

## Facility Planning Data Sheet

### 2033D Series 30 - 80 kVA UPS (480in/480out, 480in/208out)

Power Rating		UPS AC Input							Battery System			AC Output			Mechanical Information				
		Voltage		kVA		Current		Minimum Input	External Overcurrent Protection	Nominal Voltage	Full Load	Maximum Discharge	Voltage	Current Nominal	External Overcurrent Protection	Dimensions W x D x H	Weight	Floor Loading	Heat Rejection
kVA	kW	Vac/ Freq.	Nom.	Max.	Nom.	Max.	AWG			VDC	kW	A	Vac	A		Inch	Lbs	Lbs/ Ft <sup>2</sup>	kBTU/ Hr
30	24	480 / 60Hz	26.7	30.0	32.8	36.1	8 AWG or larger	45A	480	26.3	65.5	480	36.1	45A	34x31.5x70.9	2060	278	9.3	990
30	24	480 / 60Hz	26.7	30.0	32.8	36.1	8 AWG or larger	45A	480	26.3	65.5	208	83.3	110A	34x31.5x70.9	2060	278	9.3	990
50	40	480 / 60Hz	44.1	50.0	54.1	60.1	4 AWG or larger	80A	480	43.8	109.2	480	60.1	80A	34x31.5x70.9	1580	213	13.8	1470
50	40	480 / 60Hz	44.1	50.0	54.1	60.1	4 AWG or larger	80A	480	43.8	109.2	208	138.9	175A	34x31.5x70.9	1580	213	13.8	1470
80	64	480 / 60Hz	70.7	80.0	86.8	96.2	1 AWG or larger	125A	480	69.9	174.5	480	90.2	125A	34x31.5x70.9	1990	269	22.9	2430
80	64	480 / 60Hz	70.7	80.0	86.8	96.2	1 AWG or larger	125A	480	69.9	174.5	208	208.2	300A	34x31.5x70.9	1990	269	22.9	2430
Notes:				1	2	3,4,10,13,A,B,C		4,7,9	5	6,10		1		4,7,8,11	11,12				

#### Notes:

1. Nominal (Nom.) current based on rated load.
2. Maximum (Max.) current based on converter overload rating.
3. Input and output cables typically run in separate conduits.
4. If initial load is less than UPS' rated output, it is recommended that AC input, battery, and AC output wiring and overcurrent protection be sized to UPS' full load rating to accommodate possible future expansion.
5. Nominal battery voltage assumed to be 2.0 volts/cell (lead technology).
6. DC cables should be sized for not more than a 2.0% line drop at maximum discharge current.
7. Suggested AC output overcurrent protection based on continuous full load current per NEC 210-20. 80% rated breakers assumed.
8. Grounding conductors to be sized per NEC Article 250-122 and NEC Table 250-122. Neutral conductors to be sized per NEC Article 310-15.
  - AC Input: 3  $\phi$ , 3 wire, ground.  
**For single input feed, jumper bypass and converter phase conductors.**
  - Bypass Input: 3  $\phi$ , 3 wire + ground.
  - AC Output: 3  $\phi$ , 4 wire + ground.
  - DC Input: 2 wire (Positive and Negative) + ground.
9. Input neutral conductor not required.
10. All wiring to be in accordance with all applicable national and/or local electrical codes.
11. Minimum access clearance per UPS drawings or Owner's Manual.
12. Cable entry from top or bottom. Punch plates accordingly. (*Side access possible. Consult MEPPI for specifics.*)
13. Control wiring and power wiring to be run in separate conduits.

#### Additional Notes:

- i. For site configurations including emergency generators, engine generator to be sized and equipped for UPS applications. Generator equipped with governor for frequency regulation and regulator for voltage stability recommended. Note: UPS' reflected current distortion is 4% max at full load and 7% max at 50% load.
  - ii. For site configurations equipped with an external Maintenance Bypass Switch circuit, UPS must be on internal Static Bypass before transferring to external Maintenance Bypass. Consult Factory for further information.
  - iii. For site configurations including automatic transfer switches, transfer switch to be equipped with "neutral delay position" option to minimize phase shift during operation. Transfer switch equipped with auxiliary contact for control of UPS input current when on generator recommended. Consult transfer switch manufacturer for required transfer switch options and sizing.
- A. Not more than 3 conductors in raceway assumed; ambient temperature of 30 °C (86 °F) assumed.
- B. Temperature rating of conductors: 75 °C (167 °F). Reference Table 310-16 of NEC, 75 °C column, using copper conductors. 75 °C (167 °F) cable terminal connectors assumed.
- C. Reference: NEC handbook 2005. Consult local codes for possible variations.
- D. RATINGS OF CABLES AND OVERCURRENT DEVICES SUPPLIED FOR INFORMATION ONLY. USER TO CONSULT WITH ITS ENGINEERING SERVICES BEFORE ADOPTING.**



Mitsubishi Electric Power Products, Inc.  
UPS Division  
Phone: (724) 772-2555 Fax: (724) 778-3146